

Name _____

Lab Partners _____

Earthworm Dissection

Getting Ready:

- Three people per specimen
- Individuals who do not wish to touch the worm do not have to BUT you all MUST assist in set up, clean up, and observing the worm
- Materials you will need:
 1. Dissecting pan (which must also be cleaned when you are finished)
 2. Scalpel (very sharp) DO **NOT** CUT ANYTHING BUT THE WORM!!!
 3. Straight pins
 4. Dissection probe
 5. Earthworm specimen
 6. Hand lens
 7. Paper towel

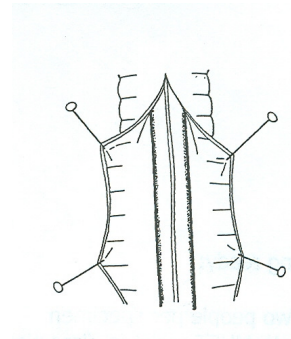
Grading:

- You will be graded on your efforts to dissect (Don't destroy the worm)
- You will be graded on your ability to identify internal and external structures of the earthworm
- You will be quizzed on your knowledge (this is called a pin test)

Procedure:

1. First, locate these external body features on your specimen.
 - Clitellum (bulge toward anterior end)
 - Anterior end (shorter section) mouth at the tip
 - Posterior end (longer section) anus at the tip
 - Dorsal side (darker and rounded)
 - Ventral side (surface is flat and lighter colored)
2. Next, stretch the worm out with the dorsal side up and the anterior end pointed away from you
3. Pin the worm to the pan with the straight pins (one pin at each end)
4. Midway along the dorsal surface, begin cutting through skin and muscle, heading toward the anterior end (AWAY FROM POSTERIOR END).
 - CAUTION: Skin is very thin. Cut just enough to separate it. If you cut too deep, you will destroy the internal organs!

5. As you are cutting, STOP occasionally and spread edges apart by cutting through the thin membrane (septa) on the inside of the worm (it looks white and stringy). Use the pins to help peel back skin.
6. Pin the skin to the dissecting pan as you spread it apart. Put the pins at an angle as shown in the diagram to the right (every 2 inches or so).
7. Continue to cut and pin your worm until you reach the anterior end.
8. After you have completely opened your worm, identify the following internal organs. You can use your labeled diagram from your notes to help you.



Digestive System

- Mouth (external)
- Pharynx
- Esophagus
- Crop
- Gizzard
- Intestines
- Anus (external)

Circulatory System

- Hearts (aortic arches)
- Dorsal Blood Vessel

Nervous System

- Brain (you probably won't be able to see this in your dissection)
- Ventral nerve cord (move the intestines aside to see it)

Reproductive System

- Clitellum (external)
- Ovaries and testes